

Abstract

The invention relates to a hydraulic power steering system (1) for a vehicle, in particular an electrohydraulic power steering system for a motor vehicle, having a servo valve (2), the relative movement of whose control parts actuates a piston rod (3) of a servo cylinder (4) and changes at least one steering angle (β) of a wheel (5) which is operatively connected to the piston rod (3). The power steering system (1) additionally has an electric servo motor (6) which drives a rack (7) with the servo cylinder (4) for the purpose of adjusting the steering angle of the wheel (5) in the same direction.

In order to provide an electrohydraulic power steering system which is as compactly designed as possible in the region of its actuator and can be used flexibly for different classes of vehicle, it is provided according to the invention to combine the action of the rack (7) and the piston rod (3) of the servo cylinder (4), in a parallel arrangement with one another, on an addition member (8) for the purpose of jointly adjusting the steering angle of the wheel (5).

List of Reference Numbers

1	Hydraulic power steering system
2	Servo valve
3	Piston rod
4	Servo cylinder
5	Wheel
6	Servo motor, electric
7	Rack
8	Addition member
9	Gearing
10	Control part
11	Drive output member
12	Gearwheel
13	Steering nut
14	Recirculating ball nut
15	Pinion
16	Steering shaft
17	Superposition gearing
18	Gearing
19	Linear wheel actuator
20	Rotary slide
21	Rotary slide sleeve
22	End
23, 23'	Working space
24	Yoke
β	Steering angle